

WHAT IS CLAIMED IS:

1. A relay system relaying two or more networks to which one or more communication devices are connected, comprising:

two or more interface units accessing said networks;

5 a domain definition module defining domains as a system framework including one or more networks;

an connection definition module defining a connectability between the two or more domains;

10 a routing module storing a routing destination of the communication data;

an address translation module for translating, when forwarding communication data from a first domain to a second domain, a first address belonging to the first domain contained in a source address field of the communication data into a second  
15 address of the relay system belonging to the second domain;

an address reverse translation module for translating, when receiving communication data having the second address in a destination address field, the second address belonging to the second domain contained in the destination address field  
20 of the communication data into the first address belonging to the first domain; and

a control unit controlling a connectability for routing between the two or more domains in accordance with definitions of said connection definition module.

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2. A relay system according to claim 1, wherein said domain definition module defines the domain by information for

identifying said interface unit connected to this domain.

3. A relay system according to claim 1, wherein said control unit discards such a piece of communication data that  
5 the domain (or said interface unit receiving the communication data) corresponding to said interface unit receiving the communication data, is different from the domain (or said interface unit corresponding to the domain to which a source address of the communication data belongs) to which the source  
10 address of the communication data belongs.

4. A relay system according to claim 1, wherein said domain definition module is defined per domain by an address (or an address for identifying the communication device connected to  
15 the network included in the domain) for identifying a network included in the domain.

5. A communication data relay method for relaying two or more networks to which one or more communication devices are  
20 connected, comprising:

referring a domain definition module defining domains as a system framework including one or more networks;

referring an connection definition module for defining a connectability between the two or more domains;

25 referring a routing module storing a routing destination of the communication data;

translating, when forwarding communication data from a

first domain to a second domain, a first address belonging to the first domain contained in a source address field of the communication data into a second address of the relay system belonging to the second domain;

5        reverse translating, when receiving communication data  
having the second address in a destination address field, the  
second address belonging to the second domain contained in the  
destination address field of the communication data into the  
first address belonging to the first domain; and

10           controlling a connectivity for routing between the two  
or more domains in accordance with definitions of said connection  
definition module.